

## PERFORMANCE SPECIFICATION

RESISTORS NETWORKS, FIXED, FILM, SURFACE MOUNT,  
NONESTABLISHED RELIABILITY, AND ESTABLISHED RELIABILITY,  
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-PRF-914A, dated 3 July 1997, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 2

TABLE I, delete and substitute.

"TABLE I. Characteristics.

Test or condition	Characteristics						Units
	R	V	H	K	M	C 1/	
Resistance-temperature characteristic (see 3.13)	±25	±50	±50	±100	±300	±50	ppm/°C
Tracking to the reference element	±5	±5	<u>2/</u>	<u>2/</u>	<u>2/</u>	±5	
Maximum ambient temperature at rated wattage (see 3.6)	70	70	70	70	70	70	°C
Maximum ambient temperature at zero power derating (see figure 1)	125	125	125	125	125	125	
Thermal shock (see 3.8) and Power conditioning (see 3.9)	$\Delta R$ ±.25 ±.03	$\Delta R$ ±.25 ±.03	±.50 <u>3/</u>	±.70 <u>3/</u>	±.70 <u>3/</u>	±.25 ±.03	Maximum percent change in resistance (0.01 ohm additional allowed for measurement error). When applicable maximum percent change in resistance ratio.
Thermal shock (see 3.8)	$\Delta R$ ±.15 ±.03	$\Delta R$ ±.15 ±.03	±.25 <u>3/</u>	±.50 <u>3/</u>	±.50 <u>3/</u>	±.15 ±.03	
Low temperature operation (see 3.14)	$\Delta R$ ±.10 ±.02	$\Delta R$ ±.10 ±.02	±.10 <u>3/</u>	±.25 <u>3/</u>	±.50 <u>3/</u>	±.10 ±.02	
Short-time overload (see 3.15)	$\Delta R$ ±.10 ±.02	$\Delta R$ ±.10 ±.02	±.10 <u>3/</u>	±.25 <u>3/</u>	±.50 <u>3/</u>	±.10 ±.02	
Terminal strength (see 3.17)	$\Delta R$ ±.10 ±.03	$\Delta R$ ±.10 ±.03	±.25 <u>3/</u>	±.25 <u>3/</u>	±.25 <u>3/</u>	±.10 ±.03	

See footnotes at end of table.

MIL-PRF-914A  
AMENDMENT 3

TABLE I. Characteristics – Continued.

Test or condition	Characteristics							Units
		R	V	H	K	M	C <u>1/</u>	
Resistance to bonding exposure (see 3.20)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .25$ $\pm .02$	$\pm .25$ $\pm .02$	$\pm .25$ <u>3/</u>	$\pm .25$ <u>3/</u>	$\pm .25$ <u>3/</u>	$\pm .25$ $\pm .02$	Maximum percent change in resistance (0.01 ohm additional allowed for measurement error). When applicable maximum percent change in resistance ratio.
Moisture resistance (see 3.21)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .20$ $\pm .02$	$\pm .20$ $\pm .02$	$\pm .40$ <u>3/</u>	$\pm .50$ <u>3/</u>	$\pm .50$ <u>3/</u>	$\pm .20$ $\pm .02$	
Shock, specified pulse (see 3.22)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .25$ $\pm .03$	$\pm .25$ $\pm .03$	$\pm .25$ <u>3/</u>	$\pm .25$ <u>3/</u>	$\pm .25$ <u>3/</u>	$\pm .25$ $\pm .03$	
Vibration, high frequency (see 3.23)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .25$ $\pm .03$	$\pm .25$ $\pm .03$	$\pm .25$ <u>3/</u>	$\pm .25$ <u>3/</u>	$\pm .25$ <u>3/</u>	$\pm .25$ $\pm .03$	
Life (see 3.24.1)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .50$ $\pm .03$	$\pm .50$ $\pm .03$	$\pm .50$ <u>3/</u>	$\pm .50$ <u>3/</u>	$\pm 2.0$ <u>3/</u>	$\pm .50$ $\pm .03$	
FR level		$\pm 2.0$	$\pm 2.0$	$\pm 2.0$	$\pm 2.0$	$\pm 2.0$	$\pm 2.0$	
High temperature Exposure (see 3.25)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .10$ $\pm .03$	$\pm .10$ $\pm .03$	$\pm .20$ <u>3/</u>	$\pm .50$ <u>3/</u>	$\pm 1.0$ <u>3/</u>	$\pm .10$ $\pm .03$	
Low temperature storage (see 3.26)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .10$ $\pm .02$	$\pm .10$ $\pm .02$	$\pm .10$ <u>3/</u>	$\pm .25$ <u>3/</u>	$\pm .50$ <u>3/</u>	$\pm .10$ $\pm .02$	
Steady-state humidity (see 3.28)	$\Delta R$ $\Delta \text{Ratio}$	$\pm .20$ $\pm .02$	$\pm .20$ $\pm .02$	$\pm .40$ <u>3/</u>	$\pm .50$ <u>3/</u>	$\pm .50$ <u>3/</u>	$\pm .20$ $\pm .02$	
Insulation resistance (see 3.19)		10,000	10,000	10,000	10,000	10,000	10,000	Megohms
Resistance, tolerance and, when applicable, resistance ratio accuracy (see table VIII) <u>4/</u>		B D F	B D F	B D F	D F G J	F G J	B D F	$\pm$ percent

1/ Hermetically sealed resistor network (see 3.27).

2/ Not applicable.

3/ Delta ratio are not applicable.

4/ See 3.10.3.

PAGE 20

4.5h, delete "P" and substitute "M".

MIL-PRF-914A  
AMENDMENT 3

PAGE 41

6.2c, delete and substitute.

"c. Packaging requirements (e.g., Electrostatic discharge (ESD) sensitivity) (see 5.1)."

After 6.4.2, add.

"6.4.3 Electrostatic charge. Under several combinations of conditions, these resistors can be electrically damaged, by electrostatic charges, and drift from specified value. Users should be consider this phenomena when ordering or shipping resistors. Direct shipment to the Government is controlled by MIL-DTL-39032 which specifies a preventive packaging procedure."

PAGE 42

A.3.1, delete "P" and substitute "M".

Custodians:

Army - CR  
Navy - EC  
Air Force - 11

Preparing activity:

Army - CR

Agent:

DLA - CC

Review activities:

Army - AR, AT, AV, CR4, MI  
Navy - AS, CG, MC, OS  
Air Force - 19  
NASA - NA

(Project 5905-1596)